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09/930,119

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Bruce A. Schofield

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34845 7590 01/24/2008  
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EXAMINER

BOUTAH, ALINA A

ART UNIT

PAPER NUMBER

2143

NOTIFICATION DATE

DELIVERY MODE

01/24/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

Application No.

09/930,119

Applicant(s)

SCHOFIELD ET AL.

Examiner

Alina N. Boutah

Art Unit

2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 39-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Amendment***

This action is in response to Applicant's amendment filed June 21, 2007. Claims 1-49 are pending in the present application.

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 1, 2007 has been entered.

### ***Election/Restrictions***

Applicant's election without traverse of claims 1-38 in the reply filed on October 25, 2007 is acknowledged. Applicant is reminded that the non-elected claims must be cancelled upon allowance of the application.

### ***Specification***

The incorporation of essential material in the specification by reference to any U.S. application, foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied

upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 1-13, the “optical service agent” as claimed lacks evidence of storage on a medium which enables any underlying functionality to occur. The elements listed in the claims (user-to-network interface and optical service logic) are not hardware elements. Instead, one can reasonably interpret them as software. Software, per se, is non-statutory. See M.P.E.P. 2601.1 Section I, which states, “Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and USPTO personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program’s functionality, as nonstatutory functional descriptive material.”

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-14, 16-27, 29, and 31-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,681,232 issued to Sistanizadeh et al in view of USPN 7,133,403 issued to Mo et al.

Sistanizadeh et al. combined with Mo et al. teach claims:

1. An optical service agent (Sistanizadeh: col. 8, lines 27-33) for managing communication services for a user in an optical communication system in which the user lacks at least some network information related to the services, the optical service agent comprising:  
a user-to-network interface (UNI) (Sistanizadeh: abstract: user interface) for interfacing with an optical communication network (Sistanizadeh: abstract: "IP-Over Ethernet on fiber networks;" col. 3, lines 33-51: optical fiber access ring interconnecting switches) including signaling to a network device having network information related to the communication services (Sistanizadeh: col. 3, lines 18-33; col. 9, lines 37-39), including network topological information (Sistanizadeh: col.2, lines 36-67; col. 3, lines 18-30), to cause the network device to signal an indication of group membership to other devices in communication with the optical

communication network (Sistanizadeh: col. 14, lines 6-18: advertising routes to peers on the internet); and

optical service logic for obtaining a new optical communication path from the optical communication network via the network device by signaling through the UNI, the network device selecting the communication path based at least in-part on the network information related to the communication services and managing said optical communication path for the user (Sistanizadeh: col. 18, lines 17-35; fig.4; "Summit48 supports OSPF (Open Shortest Path First). OSPF is a routing protocol that determines the best path for routing IP traffic over a TCP/IP network.").

However, Sistanizadeh does not explicitly teach managing said optical communication path for the user without exposing the network topological information to the user, whereby the user need not have the network information in order to obtain a new optical communication path.

In an analogous art, Mo teaches managing optical communication path for the user without exposing the network topological information to the user whereby the user need not have the network information in order to obtain a new optical communication path (Mo: col. 3, lines 3-13). At the time the invention was made, one of ordinary skill in the art would have been motivated to manage communication path for users without exposing the network topological information to the user in order to prevent cross contamination and intrusions between users and the network system (Mo: col. 3, lines 9-13).

3. The optical service agent of claim 1, further comprising auto-discovery logic for automatically discovering peer users (Sistanizadeh: col. 14, lines 6-18: advertising routes to peers on the internet).

4. The optical service agent of claim 3, wherein the auto-discovery logic comprises an advertisement mechanism for sending and receiving peer information (Sistanizadeh: col. 14, lines 6-18: advertising routes to peers on the internet).

5. The optical service agent of claim 4, further comprising a peer database for storing peer information (Sistanizadeh: col. 14, lines 6-36).

6. The optical service agent of claim 1, further comprising peer authentication logic for authenticating peer users (Sistanizadeh: fig. 11, peer authenticating logic peer users 187, 90, 135, 133).

7. The optical service agent of claim 1, further comprising peer-to-peer signaling logic for communicating with peer users (Sistanizadeh: fig. 11; col. 14, lines 6-36).

8. The optical service agent of claim 7, wherein the optical service logic coordinates communication services with peer users via the peer-to-peer signaling logic (Sistanizadeh: fig. 11).

9. The optical service agent of claim 1, wherein the optical service agent comprises an application component and a network component (Sistanizadeh: col. 35, lines 16-33 - "The system 351 also includes one or more input/output interfaces for communications, shown by way of example as an interface 359 for data communications via the LAN at the NOC 135, and from that LAN to the out-of-band signaling network and preferably to the production network. The interface 259 could include a modem for telnet sessions, but preferably comprises one or more network interface cards, such as Ethernet cards. The communication interface 359 may include virtually any other appropriate data communications device. The physical communication links may be optical, wired, or wireless (e.g., via satellite or cellular network). In accord with aspects of the invention, the computer system 351 connects to a local area network, for communication with other operations support systems, such as the web server 111 and the order manager 147, at one of the NOC locations 135. Through the LAN and/or another interface card, the system 107 also has communications connectivity both to the production network (for SNMP communications and the like) and to the NOC router for the out-of-band (OOB) communications.").

10. The optical service agent of claim 9, wherein the application component and the network component are situated within the user, and wherein the network component implements the UNI for interfacing with the optical communication network (Sistanizadeh: figure 12: 351).



11. The optical service agent of claim 9, wherein the application component is situated within the user and the network component is situated within the optical communication network, and wherein the application component and the network component communicate via the UNI (Sistanizadeh: figure 12: 351).

12. The optical service agent of claim 9, wherein the application component and the network component communicate via a control interface, and wherein the network component interfaces with the optical communication network via the UNI as a proxy for the application component (Sistanizadeh: figures 1 and 2).

13. The optical service agent of claim 1, further comprising an application program, interface (API) for interfacing with a user application (Sistanizadeh: figure 1: 113).

Claims 14 and 16-25 are similarly rejected as in claims 1 and 3-13.

Claim 26 is similar to claim 1, therefore is rejected under the same rationale. Claim 26 furthermore recites a controller for providing optical communication services. The element is taught by Sistanizadeh in col. 35, lines 16-33

27. The apparatus of claim 26, wherein the optical service agent implements a user-to-network interface (UNI) for interfacing with the controller (Sistanizadeh: abstract: user interface).

Claim 29 is similarly rejected as in claim 1.

Claims 31-33 are similarly rejected as in claims 10-12.

34. The system of claim 29, further comprising a second network user coupled to the optical communication network, said second network user comprising a second optical service agent (Sistanizadeh: figure 3).

35. The system of claim 34, wherein each of said optical service agents comprises autodiscovery logic for automatically discovering the other of said optical service agents (Sistanizadeh: col. 14, lines 6-18: advertising routes to peers on the internet).

36. The system of claim 34, wherein each of said optical service agents comprises peer authentication logic for authenticating the other of said optical service agents (Sistanizadeh: fig. 11, peer authenticating logic peer users 187, 90, 135, 133).

37. The system of claim 34, wherein each of said optical service agents comprises peer-to-peer signaling logic for coordinating communication services with the other of said optical service agents (Sistanizadeh: col. 14, lines 6-18: advertising routes to peers on the internet).

38. The system of claim 29, further comprising a second network user coupled to the optical communication network, said second network user excluding an optical service agent (Sistanizadeh: figure 4).

Claims 2, 15 and 28 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,681,232 issued to Sistanizadeh et al in view of USPN 7,133,403 issued to Mo et al. in further view of USPN 7,095,956 issued to Levandovsky et al.

Sistanizadeh et al. combined with Mo et al. and Levandovsky et al. teach claims:

2, 15, 28 and 30. Neither Sistanizadeh nor Mo teaches wherein the optical communication network comprises an automatically switched optical/transport network (ASON), and wherein the UNI comprises an ASON UNI. However, this feature is known in the art as evidenced by Levandovsky (col. 1, lines 35-42). at the time the invention was made, one of ordinary skill in the art would have been motivated to employ ASON because by definition, ASON is divided into sub-networks, and within these networks, paths are capable of delivering acceptable quality of service, thereby reducing undesirable optical transmission impairments (Levandovsky: col. 1, lines 35-42).

### ***Response to Arguments***

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

It is noted that the column, line, and/or page number citations used in the prior art references as applied by the Examiner to the claimed invention are for the convenience of the Applicant to represent the relevant teachings of the prior art. The prior art references may contain further teachings and/or suggestions that may further distinguish the citations applied to the claims, therefore, the Applicant should consider the entirety of these prior art references during the process of responding to this Office Action. It is further noted that any alternative and non-preferred embodiments as taught and/or suggested within the prior art references also constitute prior art and the prior art references may be relied upon for all the teachings would have reasonably suggested to one of ordinary skill in the art. See MPEP 2123.

The prior art listed in the PT0-892 form included with this Office Action disclose methods, systems, and apparatus similar to those claimed and recited in the specification. The Examiner has cited these references to evidence the level and/or knowledge of one of ordinary skill in the art at the time the invention was made, to provide support for universal facts and the technical reasoning for the rejections made in this Office Action including the Examiner's broadest reasonable interpretation of the claims as required by MPEP 2111 and to evidence the plain meaning of any terms not defined in the specification that are interpreted by the Examiner in accordance with MPEP 2111.01. The Applicant should consider these cited references when preparing a response to this Office Action.

Application/Control Number:  
09/930,119  
Art Unit: 2143

Page 12

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alina N. Boutah whose telephone number is 571-272-3908. The examiner can normally be reached on Monday-Friday (9:00 am - 5:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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AU 2143